$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} 26 \\ \\ \end{array} \\ 25 \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} 26 \\ \end{array} \\ 25 \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} 26 \\ \end{array} \\ 25 \end{array} \\ \begin{array}{c} 27 \\ \end{array} \\ \begin{array}{c} 23 \\ \end{array} \\ \begin{array}{c} 17 \\ \end{array} \\ \begin{array}{c} 12 \\ \end{array} \\ \begin{array}{c} 23 \\ \end{array} \\ \begin{array}{c} 17 \\ \end{array} \\ \begin{array}{c} 13 \\ \end{array} \\ \begin{array}{c} 24 \\ \end{array} \\ \begin{array}{c} 22 \\ \end{array} \\ \begin{array}{c} 24 \\ \end{array} \\ \begin{array}{c} 24 \\ \end{array} \\ \begin{array}{c} 22 \\ \end{array} \\ \begin{array}{c} 24 \\ \end{array} \\ \begin{array}{c}$$

chain nodes :

11 21 22 23 24 25 26

ring nodes :

1 2 3 4 5 6 7 8 9 12 13 14 15 16 17

ring/chain nodes :

27

chain bonds :

7-25 11-12 16-21 21-22 22-23 22-24 25-26 25-27

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 12-13 12-17 13-14 14-15 15-16 16-17

exact/norm bonds :

5-7 6-9 7-8 7-25 8-9 11-12 16-21 21-22 22-23 22-24 25-26 25-27

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 12-13 12-17 13-14 14-15 15-16 16-17

G1:0,S,N,SO2,NH,NH2

G2:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:Atom

12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 20:CLASS 21:CLASS 22:CLASS

23:CLASS 24:CLASS

25:CLASS 26:CLASS 27:CLASS

L3 STRUCTURE UPLOADED

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FULL SUBSET SEARCH INITIATED 19:58:27 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 178 TO ITERATE

100.0% PROCESSED 178 ITERATIONS

SEARCH TIME: 00.00.01

152 ANSWERS

=>

Uploading C:\Program Files\Stnexp\Queries\10651496b.str

chain nodes :

11 21 22 23 24 25 26 28 29

ring nodes :

1 2 3 4 5 6 7 8 9 12 13 14 15 16 17

ring/chain nodes :

27

chain bonds :

7-25 11-12 16-21 21-22 22-23 22-24 25-26 25-27 27-28 27-29

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 5-7 \quad 6-9 \quad 7-8 \quad 8-9 \quad 12-13 \quad 12-17 \quad 13-14 \quad 14-15 \quad 15-16$

16-17

exact/norm bonds :

5-7 6-9 7-8 7-25 8-9 11-12 16-21 21-22 22-23 22-24 25-26 25-27

exact bonds :

27-28 27-29

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 12-13 12-17 13-14 14-15 15-16 16-17

G1:0,S,N,SO2,NH,NH2

G2:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:Atom

12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 20:CLASS 21:CLASS 22:CLASS

23:CLASS 24:CLASS

25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS

L5 STRUCTURE UPLOADED

=> d

L5 HAS NO ANSWERS

L5

STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

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For additional help, enter "HELP SEARCH".

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FULL SUBSET SCREEN SEARCH COMPLETED - 152 TO ITERATE

100.0% PROCESSED 152 ITERATIONS 68 ANSWERS SEARCH TIME: 00.00.01

L6 68 SEA SUB=L4 SSS FUL L5

=> file caplus
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
240.01 240.22

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FILE COVERS 1907 - 11 Dec 2005 VOL 143 ISS 25 FILE LAST UPDATED: 9 Dec 2005 (20051209/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 16 L7 1 L6

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L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:203828 CAPLUS

DN 140:253450

TI Preparation of azaarene derivatives as neovascularization inhibitors

IN Tsuruoka, Akihiko; Matsushima, Tomohiro; Matsukura, Masayuki; Miyazaki, Kazuki; Takahashi, Keiko; Kamata, Junichi; Fukuda, Yoshio

PA Eisai Co., Ltd., Japan

SO PCT Int. Appl., 347 pp.

CODEN: PIXXD2

DT Patent

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LΑ
     Japanese
FAN.CNT 1
      PATENT NO.
                            KIND
                                   DATE
                                                APPLICATION NO.
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ΡI
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                                               WO 2003-JP10964
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                            Α
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                                                 NO 2005-1577
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                                   20020830
     US 2003-464690P
                            Р
                                   20030422
     WO 2003-JP10964
                            W
                                   20030828
     MARPAT 140:253450
               THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> s 14
L8
              2 L4
=> d 18 1-2 ibib abs
     ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                           2004:203828 CAPLUS
DOCUMENT NUMBER:
                           140:253450
TITLE:
                            Preparation of azaarene derivatives as
                           neovascularization inhibitors
                           Tsuruoka, Akihiko; Matsushima, Tomohiro; Matsukura,
INVENTOR(S):
                           Masayuki; Miyazaki, Kazuki; Takahashi, Keiko; Kamata,
                            Junichi; Fukuda, Yoshio
PATENT ASSIGNEE(S):
                            Eisai Co., Ltd., Japan
SOURCE:
                            PCT Int. Appl., 347 pp.
                            CODEN: PIXXD2
DOCUMENT TYPE:
                            Patent
LANGUAGE:
                            Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                                                APPLICATION NO.
                           KIND
                                   DATE
                                                                         DATE
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     WO 2004020434
                            A1
                                   20040311
                                               WO 2003-JP10964
                                                                         20030828
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              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2488739 AΑ 20040311 CA 2003-2488739 20030828 EP 1522540 **A1** 20050413 EP 2003-791389 20030828 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK BR 2003013871 Α 20050719 BR 2003-13871 20030828 US 2005187236 A1 20050825 US 2003-651496 20030829 NO 2005001577 20050527 Α NO 2005-1577 20050329 PRIORITY APPLN. INFO.: JP 2002-253123 20020830 US 2003-464690P Ρ 20030422 WO 2003-JP10964 20030828

OTHER SOURCE(S):

MARPAT 140:253450

GI

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 & N \\
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 & R^9 \\
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 & R^1 \\
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The title compds. I [X1 is nitrogen or a group represented by the general AB formula CR10; X2 is nitrogen or a group represented by the general formula CR11; Y is oxygen or the like; R1 is C1-6 alkoxy, optionally substituted C6-10 aryloxy, a group represented by the general formula NR12aR12b, or the like; R2 is hydrogen, optionally substituted C1-6 alkyl, or the like; R3 - R8, R10, and R11 are each independently hydrogen, halogeno, optionally substituted C1-6 alkyl, or the like; R9 is a group represented by the general formula NR16aR16b, or the like; and R12a, R12b, R16a, and R16b are each independently hydrogen, optionally substituted C1-6 alkyl, or the like] are prepared Compds. of this invention showed IC50 values of 3 nM to 40 nM against VEGFR2 kinase.

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

3

ACCESSION NUMBER:

2002:314913 CAPLUS

Ι

DOCUMENT NUMBER:

136:340689

TITLE:

Preparation of urea derivatives containing nitrogenous aromatic ring compounds as inhibitors of angiogenesis

INVENTOR (S): Funahashi, Yasuhiro; Tsuruoka, Akihiko; Matsukura, Masayuki; Haneda, Toru; Fukuda, Yoshio; Kamata, Junichi; Takahashi, Keiko; Matsushima, Tomohiro;

Miyazaki, Kazuki; Nomoto, Kenichi; Watanabe, Tatsuo; Obaishi, Hiroshi; Yamaguchi, Atsumi; Suzuki, Sachi; Nakamura, Katsuji; Mimura, Fusayo; Yamamoto, Yuji; Matsui, Junji; Matsui, Kenji; Yoshiba, Takako; Suzuki,

Yasuyuki; Arimoto, Itaru Eisai Co., Ltd., Japan

PATENT ASSIGNEE(S):

PCT Int. Appl., 699 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.						DATE		APPLICATION NO.						DATE			
WO	2002032872				A1		20020425		WO 2001-JP9221					20011019				
WO	WO 2002032872																	
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											, EE,							
											, KG,							
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•		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL	, TJ,	TM,	TR,	TT,	TZ	, UA,	UG,	
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AU	2001	0959	86		A5 20020429				CA 2001-2426461 AU 2001-95986					20011019				
EP	1415	987			A1		2004	0506		EP.	2001-	9767	86			20011	019	
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	1506962				A2 20050216 A3 20050302				EP 2004-25700				20011019					
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NZ	NZ 525324				A 20050324				NZ 2001-525324					20011019				
JP	JP 3712393				B2 20051102				JP 2002-536056					20011019				
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US	US 2004053908				A1 20040318				US 2003-420466					20030418				
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						A2 20051006				JP 2005-124034 JP 2000-320420					20050421			
PRIORITY APPLN. INFO.:																		
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00110n ==	· · · · ~ -									WO :	2001-	JP92:	21		W	20011	.019	
OTHER SO	JURCE	(S):			MARI	PAT	136:	34068	39									

AB N-aryl or N-heteroarylurea derivs. represented by the general formula Ag-Xg-Yg-Tgl or salts thereof, or hydrates of both [wherein Ag = (un)substituted C6-14 aryl or 5- to 14-membered heterocyclic group; Xg = single bond, O, S, C1-6 alkylene, SO, SO2, (un)substituted NH; Yg = (un)substituted C6-14 aryl, 5- to 14-membered heterocyclic group, C1-8 alkyl, C3-8 alicyclic hydrocarbyl, C6-14 aryl-C1-6 alkyl, 5- to 14-membered heteroaryl-C1-6 alkyl, (CH2)gSO2 (g = 1-8), (CH2)faCH:CH(CH2)fb (fa, fb = 0, 1,2,3), etc.; and Tg1 = a group of the

general formula -Eg-CO-NRg1(Zg) or Q; wherein Eg = a single bond, (un) substituted NH; Rg1 = H, (un) substituted C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C3-8 aliphatic hydrocarbyl, etc.; Zg = C1-8 alkyl, C3-8 alicyclic hydrocarbyl, C6-14 aryl, etc.; Zg1, Zg2 = (a) a single bond, (b) C1-6 alkylene optionally having ≥1 atoms selected from O, S, and N in the middle or the terminus of the chain and optionally substituted with oxo, (c) (un) substituted C2-6 alkenyl] are prepared These compds. are also inhibitors of vascular endothelial growth factor receptor kinase (VEGFR2 kinase) and are useful as antitumor agents against hemangioma, pancreatic cancer, stomach cancer, colon cancer, breast cancer, prostate cancer, lung cancer, brain tumor, leukemia, or ovarian cancer, as cancer metastasis inhibitors, and for the treatment of retina neovascularization, diabetic retinopathy, atherosclerosis, or inflammatory diseases such as osteoarthritis, rheumatoid arthritis, psoriasis, or delayed hypersensitivity. Thus, to solution of 334 mg 4-[6-(4-benzyloxyphenyl)-7-(2trimethylsilylethoxymethyl)-7H-pyrrolo[2,3-d]pyrimidin-4-yloxy]-2chlorophenylamine in 4 mL DMF were added 0.066 mL pyridine and 0.102 mL Ph chlorocarbonate and stirred at room temperature for 2.5 h to give 330 mg N-[4-[6-(4-benzyloxyphenyl)-7-(2-trimethylsilylethoxymethyl)-7Hpyrrolo[2,3-d]pyrimidin-4-yloxy]-2-chlorophenyl]-N'-cyclopropylurea which (260 mg) was hydrogenolyzed over platinum oxide in ethanol overnight to give 160 mg N-[4-[6-(4-hydroxyphenyl)-7-(2-trimethylsilylethoxymethyl)-7Hpyrrolo[2,3-d]pyrimidin-4-yloxy]-2-chlorophenyl]-N'-cyclopropylurea (I). I showed IC50 of 0.02 nM for inhibiting the vascular endothelial growth factor (VEGF)-stimulated sandwich tube formation in vascular endothelial

REFERENCE COUNT:

17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT